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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/470,452	12/22/1999	JOHN G. POSA	POS-01102/29	6162

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EXAMINER
VO, HAI

ART UNIT	PAPER NUMBER
1771	13

DATE MAILED: 07/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

A 8-48

Office Action Summary	Application No.	Applicant(s)	
	09/470,452	POSA ET AL.	
	Examiner	Art Unit	
	Hai Vo	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 May 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8 and 20-23* is/are pending in the application.

4a) Of the above claim(s) *1-8* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *20-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

1. Claims 9-19 have been cancelled in the amendment received on 05/05/2003.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 20 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art of figure 1 as admitted by the Applicant on page 5, lines 11-15 of the present invention (herein after referred to as the admitted prior art) in view of Heilman et al (US 5,474,194). The admitted prior art discloses a conventional packing tape meeting all the limitations of structure of the claimed subject matter except the presence of the fluorescent material in the backing layer (Figure 1, page 5, line 10-18 of the specification). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a fluorescent dye into the backing layer of the conventional packing tape motivated by the desire to generate an irreversible color change at the edge of the tape when the tape is cut.

Heilman discloses a color change system including a brittle layer **44** formed of a flexible material and being colored with a fluorescent dye. Heilman teaches the failure of the brittle layer due to the fact that it is provided with a fluorescent dye results in a greatly enhanced fluorescent color. At the same time,

the transparent cover layer prevents any loss of particles of the fracture brittle layer (figure 5, column 3, lines 33-48, and column 4, lines 1-10). Likewise, it is clearly apparent that the fluorescent dye is disposed within the bulk of the brittle layer. Since Heilman is using the same material, i.e, fluorescent dye to form the fluorescent material as Applicants, it is not seen that the fluorescent dye would have performed differently from that of the claimed invention such as operable to absorb light of a first wavelength and emit light of a second wavelength different from the first wavelength. Products of identical chemical composition can not have mutually exclusive properties. In re Spada, 15 USPQ 2d 1655 (1990).

Neither the cited art discloses or suggests a phenomenon of internal reflection as set forth in the claims. However, it is the examiner's position that the fluorescent emission would be substantially inherently present for the following reasons. First, the adhesive tape of the admitted prior art as modified by Heilman appears to be structurally the same as the adhesive tape of the present invention (a backing layer having a front surface, a back surface, and an edge extending therebetween, a fluorescent material disposed in the backing layer and an adhesive disposed on at least one of the front surface and back surface of the backing layer). Second, Heilman discloses the fluorescent dye capable of generating an irreversible color change upon a cohesive failure of the brittle layer. As referred to the last paragraph of page 9 of Applicants specification, when the tape is cut or torn, microcapsules of the fluorescent dye within the

backing layer are broken to generate a color change of the adhesive tape. It is clearly apparent that Heilman discloses exactly the same mechanisms through which the color change is generated as Applicants. It is not seen that the internal reflection would be impossible in the adhesive of the admitted prior art as modified by Heilman.

4. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art of figure 1 as admitted by the Applicant on page 5, lines 11-15 of the present invention (herein after referred to as the admitted prior art) in view of Heilman et al (US 5,474,194) as applied to claim 20 above, as evidenced by Krasieva et al (US 5,734,498). The combination of the primary and secondary references fails to suggest or disclose the amount of the fluorescent dye present in the backing layer. Krasieva discloses optical density is the standard measure of quantifying an amount of an optically active substance such as fluorophore (column 42, lines 42-43). Krasieva also discloses the amount of each dye used to obtain the optical density being extrapolated from commonly-available information on fluorescent and other dyes (column 43, lines 5-10). Therefore, such an amount of fluorescent dye would have been recognized by one skilled in the art motivated to obtain a desired optical density for illumination enhancement. As such, in the absence of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the fluorescent dye having the amount instantly claimed motivated by the desire to obtain a desired optical density for illumination enhancement, since it has been held that where the

general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. ***In re Aller***, 105 USPQ 233.

5. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art of figure 1 as admitted by the Applicant on page 5, lines 11-15 of the present invention (herein after referred to as the admitted prior art) in view of Heilman et al (US 5,474,194) and as evidenced by Yarusso (US 5,866,249). The admitted prior art does not specifically disclose the nature of the flexible backing layer. However, it is well-known in the art the flexible backing layer of the adhesive tape is made polyester (US 5,866,249, column 5, line 33).

WITHDRAWAL OF FINALITY OF LAST OFFICE ACTION

6. Since the examiner failed to indicate final in the previous Office action, the finality of the previous Office action is hereby withdrawn. Applicant's first submission after final filed on 05/05/2003 has been entered.

Response to Arguments

7. Applicant's arguments filed 05/05/03 have been fully considered but they are not persuasive.
8. The art rejections have been maintained for the following reasons. The arguments that none of the prior art discloses or suggests an adhesive tape which uses the phenomena of fluorescent and internal reflection to provide a body of material having a glowing edge. They are not found persuasive. First, the adhesive tape of the admitted prior art as modified by Heilman appears to be

structurally the same as the adhesive tape of the present invention (a backing layer having a front surface, a back surface, and an edge extending therebetween, a fluorescent material disposed in the backing layer and an adhesive disposed on at least one of the front surface and back surface of the backing layer). Second, Heilman discloses the fluorescent dye capable of generating an irreversible color change upon a cohesive failure of the brittle layer. As referred to the last paragraph of page 9 of Applicants specification, when the tape is cut or torn, microcapsules of the fluorescent dye within the backing layer are broken to generate a color change of the adhesive tape. It is clearly apparent that Heilman discloses exactly the same mechanisms through which the color change is generated as Applicants. It is not seen that the internal reflection would be impossible in the adhesive of the admitted prior art as modified by Heilman.

Applicants argue that the fluorescent material in Heilman is disposed atop the display layer, not within the bulk of the brittle layer. It is not found persuasive. Heilman discloses a color change system including a brittle layer **44** formed of a flexible material and being colored with a fluorescent dye. Heilman teaches the failure of the brittle layer due to the fact that it is provided with a fluorescent dye results in a greatly enhanced fluorescent color. At the same time, **the transparent cover layer prevents any loss of particles of the fracture brittle layer** (figure 5, column 3, lines 33-48, and column 4, lines 1-10). Likewise, it is

clearly apparent that the fluorescent dye is disposed within the bulk of the brittle layer.

The examiner absolutely agrees that Heilman reference itself does not show or suggest the phenomena of internal reflection as described in the present invention. However, the combination of the primary reference and Heilman does suggest the phenomena of internal reflection for the reasons set forth in the paragraph above. The arguments that one of skill in the art faced with the problem of providing a mean for detecting the free edge of a body of rolled adhesive tape would not look to the teaching in Heilman. They are not found persuasive. It has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Heilman does disclose the use of the fluoresent dye in the brittle layer which corresponds to the backing layer of the adhesive tape. The rupture of the fluorescent dye in the brittle layer due to a mechanical action leads to the irreversible color change. Heilman teaches exactly what is going to happen to the backing layer of the claimed adhesive tape and how the edge of the tape is glowing when the tape is cut or torn. Therefore, the examiner believes that it is obvious to one of skill in the art will look to the teaching in Heilman when faced with the problem of providing a mean for detecting the free edge of a body of rolled adhesive tape.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (703) 605-4426. The examiner can normally be reached on Tue-Fri, 8:30-6:00 and on alternating Mondays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

HV
June 30, 2003

TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700